

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2002	
BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0207028F Joint Expeditionary Force Experiment					
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	0	43,564	27,161	51,145	27,587	52,139	27,449	Continuing	TBD
4373 JEFX	0	38,982	20,783	44,483	20,934	47,192	22,508	Continuing	TBD
4991 JDEP	0	4,582	6,378	6,662	6,653	4,947	4,941	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0

(U) A. Mission Description

The Joint Expeditionary Force Experiments (JEFX) are large-scale warfighter experiments that address emerging operational challenges and are part of the total AF experimentation effort. They combine live-fly forces and simulations into an operationally representative warfighter environment. These experiments provide a vehicle for experimentation with operational concepts and attendant new technologies to evolve and transform our aerospace forces and capabilities for the 21st century. They are part of a broader effort to implement the Joint Vision 2020, exploit the Revolution in Military Affairs, demonstrate emerging Air Force capabilities to deploy and employ decisive aerospace power for the Joint Force Commander, and are important enablers of innovation and transformation.

In FY01, the Air Force moved to a biennial schedule for JEFX conducted in the even years. To reduce risk in the large scale experiments during the even years, a small scale Advanced Process and Technology Experiment (APTX) is scheduled for the odd years. These experiments will focus on specifically targeted capability requirements that will be part of the JEFX experiment. For 2001 (performed under PE 0207027) the focus was alliance operations that required building an open Combined Aerospace Operations Center (CAOC) floor. In addition, the Air Force began the integration of proven initiatives into integrated Air Force/Joint/Coalition Command and Control providing integrated/interoperable fielded capabilities for warfighter use. Transition of selected technologies to the warfighter will be based on a rigorous, defined process which ensures interoperability with fielded programs and maximum return on investment. Funding for transition of selected technologies is provided in the odd years only. Specific weapon system development and procurement activities are funded in their own budget lines as applicable.

A full-scale experiment as performed in FY99 and FY00 will be conducted in FY02. JEFX 02 will explore Time Critical Targeting and Intelligence, Surveillance and Reconnaissance Management in a reduced footprint expeditionary CAOC environment with alliance partners. JEFX 02 will also demonstrate the Global Strike Task

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Force concept as the service component of the joint Millennium Challenge 02.

APTX 03 will continue the success of the earlier small scale experiment by investigating selected initiatives that will reduce the risk to JEFX 04 and the associated joint experiment Olympic Challenge 04. The focus of the experiment will center on the presentation of forces in 2015 to conduct air and space operations in support of the USJAFCOM concept of Rapid Decisive Operations. The AF exploration of task forces to accomplish missions is a key aspect of the experiment. Global Strike Task Force (GSTF) to 'kick down the door', Global Response Task Force for striking terrorism, Homeland Security Task Force to protect homeland, Humanitarian Relief to cover natural disasters and finally C2ISR Task Force to explore multi use platforms, such as combining sensors with striking capability. In addition, the experiment will continue coalition operations to prepare for Olympic Challenge 04. Specific guidance will be given by COMACC. Results of this and earlier experiments will be considered for transition.

The Joint Distributed Engineering Plant (JDEP) connects combat system engineering sites and replicates Joint Force Combat Systems to create a network testbed to assess joint Battle Management, Command, Control, Communication, Computers and Intelligence. Its objective is to improve interoperability of weapons systems and platforms through more rigorous interoperability evaluation in a replicated battlefield environment. JDEP will provide the capability both to improve service and joint systems performance in a system-of-systems environment.

JDEP will link existing service and joint combat system engineering and test sites, such as C4I hardware in-the-loop and computer-program in-the-loop engineering sites (including design activities, software support activities, test and evaluation facilities and training commands) located around the country.

(U) B. Budget Activity Justification

This effort is a Budget Activity 7, Research, Development, Test and Evaluation, Management Support, because the program provides a vehicle for developers, testers and warfighters for experimentation, analysis, operational concepts and new technologies for enhancing capabilities of the 21st century aerospace force.

(U) C. Program Change Summary (\$ in Thousands)

	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Total Cost</u>
(U) Previous President's Budget		64,005	31,987	
(U) Appropriated Value		64,005		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions				
b. Small Business Innovative Research				

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(U) C. Program Change Summary (\$ in Thousands) Continued

	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Total Cost</u>
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram				
e. Rescissions		-20,441		
(U) Adjustments to Budget Years Since FY 2002 PBR			-4,826	
(U) Current Budget Submit/FY 2003 PBR		43,564	27,161	TBD
(U) <u>Significant Program Changes:</u>				
\$4.6M was added to PE 0207028F for JDEP in FY02 to support interoperability assessment of key joint BMC4I systems.				
FY03 includes \$ -4.5M for JEFX.				
FY02 includes \$-20M for JEFX to accommodate planning and opeational needs of Enduring Freedom and Noble Eagle.				

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BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0207028F Joint Expeditionary Force Experiment				PROJECT 4373		
COST (\$ in Thousands)		FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4373	JEFX	0	38,982	20,783	44,483	20,934	47,192	22,508	Continuing	TBD
<p>Note:</p> <ul style="list-style-type: none"> - FY 2001 was executed under PE 0207027 Expeditionary Force Experiment, Program #674814. - FY 2002 JEFX is the first year of execution under this PE 0207028F. <p>(U) <u>A. Mission Description</u></p> <p>The Joint Expeditionary Force Experiments (JEFX) are large-scale warfighter experiments that address emerging operational challenges and are part of the total AF experimentation effort. They combine live-fly forces and simulations into an operationally representative warfighter environment. These experiments provide a vehicle for experimentation with operational concepts and attendant new technologies to evolve and transform our aerospace forces and capabilities for the 21st century. They are part of a broader effort to implement the Joint Vision 2020, exploit the Revolution in Military Affairs, demonstrate emerging Air Force capabilities to deploy and employ decisive aerospace power for the Joint Force Commander, and are important enablers of innovation and transformation.</p> <p>In FY01, the Air Force moved to a biennial schedule for JEFX conducted in the even years. To reduce risk in the large scale experiments during the even years, a small scale Advanced Process and Technology Experiment (APTX) is scheduled for the odd years. These experiments will focus on specifically targeted capability requirements that will be part of the JEFX experiment. For 2001 (performed under PE 0207027) the focus was alliance operations that required building an open Combined Aerospace Operations Center (CAOC) floor. In addition, the Air Force began the integration of proven initiatives into integrated Air Force/Joint/Coalition Command and Control providing integrated/interoperable fielded capabilities for warfighter use. Transition of selected technologies to the warfighter is based on a rigorous, defined process which ensures interoperability with fielded programs and maximum return on investment. Funding for transition of selected technologies is provided in the odd years only. Specific weapon system development and procurement activities are funded in their own budget lines as applicable.</p> <p>A full-scale experiment as performed in FY99 and FY00 will be conducted in FY02. JEFX 02 will explore Time Critical Targeting and Intelligence, Surveillance and Reconnaissance Management in a reduced footprint expeditionary CAOC environment with alliance partners. JEFX 02 will also demonstrate the Global Strike Task Force concept as the service component of the joint experiment Millennium Challenge.</p> <p>APTX 03 will continue the success of the earlier small scale experiment by investigating selected initiatives that will reduce the risk to JEFX 04 and the associated joint experiment Olympic Challenge 04. The focus of the experiment will center on coalition operations and homeland defense, with specific guidance given by</p>										
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<p>(U) <u>A. Mission Description Continued</u> COMACC. Results of this and earlier experiments will be considered for transition.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$0 No Activity in PE 27028--Previous activity performed in PE 27027</p> <p>(U) \$0 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$8,800 Initiatives received from government and industry, select and prioritize new and previously considered initiatives. Design, develop and install C2 center communications and computer upgrades. Initiatives are the pieces of the experiment that utilize the infrastructure to expand the capabilities of the Aerospace Expeditionary Force (AEF) and consists of proposals submitted by government and industry for experimentation in the JEFX environment. The initiatives address processes as well as technology. The JEFX environment envisions a future that leverages existing infrastructure but projects capabilities that will or may be fielded in the near future. The initiatives introduce new technologies and operational capabilities into the AEF Concept of Operations (CONOPS). The systems architecture for JEFX 2002 will consist of capabilities carried over from JEFX 2000 and new capabilities in the form of initiatives for JEFX 2002. The main focus area for JEFX 2002 is Time Critical Targeting (TCT) and the C2 of ISR that enables it. The environment is a Combined Air Operations Center (CAOC) with alliance integration on an open floor. Initiatives are the key to implementing improvements into this operational area. Spiral development of successful initiatives will be necessary to enable rapid fielding. Funding also provides enabling technologies for enhancements to the Global Grid and Global Information Grid which enables geographically separated C2 centers the ability to communicate.</p> <p>(U) \$8,400 Development of systems architecture and integration, including engineering, for the experiment. Contract engineering expertise is required to integrate initiatives into a cohesive systems architecture creating a system of systems. The initiatives must be able to perform as an integrated system within the designed architecture. Previous successful experiments have employed a team of contractors for this effort. Integration of systems and processes is the major reason JEFX is an experiment and not simply a demonstration or exercise.</p> <p>(U) \$7,400 Plan, design, coordinate and assess the experiment, provide a quick look report of the experiment, and conduct a final report to the CSAF. Provide expertise to support SPO functions of initiative selection, acquisition, program management, communications and systems planning.</p> <p>(U) \$14,382 Implement architectural configuration, conduct modeling and simulation (M&S), install and test the communications infrastructure and architectural configurations during spiral development and the conduct of the experiment. Three spirals are conducted prior to the experiment to develop, test and evaluate the JEFX environment, identify and correct problem areas, and provide training to the operators on new tools and processes. Training is required to obtain a valid assessment of the initiatives performance. The experiment fully executes the environment by bringing operators, communicators, live-fly participants, and evaluators in fully integrated distributed nodes. M&S provides the ability to</p>		
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<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2002 (\$ in Thousands) Continued</u></p> <p>replicate, as much as possible, the aerospace environment and CONOPS for experimentation while minimizing real world costs. Some tools and processes require live-fly to obtain valid assessments.</p> <p>(U) \$38,982 Total</p> <p>(U) <u>FY 2003 (\$ in Thousands)</u></p> <p>(U) \$954 Initiatives received from government and industry, select and prioritize new and previously considered initiatives. Initiatives accepted for the experiment will utilize the infrastructure to expand the capabilities of the Aerospace Expeditionary Force (AEF) and consists of proposals submitted by government and industry for experimentation in the JEFX environment. The initiatives address processes as well as technology. The JEFX environment envisions a future that leverages existing infrastructure but projects capabilities that will or may be fielded in the near future. The initiatives introduce new technologies and operational capabilities into the AEF Concept of Operations (CONOPS). The main focus of APTX 03 will be on aerospace superiority, coalition operations and homeland defense with specific guidance provided by COMACC to provide risk reduction for the conduct of JEFX 04 and JFCOMs Olympic Challenge 04.</p> <p>(U) \$3,056 Develop plans for systems architecture, systems integration and engineering. Contract engineering expertise is required to integrate initiatives into a cohesive systems architecture for creating a C2 system of systems. Systems integration is the primary reason JEFX is an experiment and not a demonstration or exercise.</p> <p>(U) \$5,405 Plan, design, coordinate and assess the experiment, provide a quick look report of the experiment, and conduct a final report to the CSAF.</p> <p>(U) \$1,368 Provide expertise to support SPO functions of initiative selection, acquisition, program management, communications and systems planning. implement architectural configuration, install and test communications and architectural configurations for the experiment. Execute and evaluate the proposed operational systems architecture through the use of operators, communicators, support personnel, and evaluators.</p> <p>(U) \$10,000 Transition funding for the integration of new initiatives and legacy systems into an integrated C2ISR baseline. (This funding is in the odd years only.)</p> <p>(U) \$20,783 Total</p> <p>(U) <u>B. Project Change Summary</u></p>		
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(U) C. Other Program Funding Summary (\$ in Thousands)								
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>
(U) AF RDT&E								
(U) Other APPN								
(U) D. Acquisition Strategy Electronic Systems Center (ESC), Hanscom AFB, MA will manage the acquisition and development process for the experimentation, integration, and fielding of selected technologies with legacy systems in an integrated C2ISR baseline. The spiral development system was created to field new and emerging technologies quickly. One of the tenets of the streamlined acquisition philosophy is to provide new capabilities through the integration of existing software components. JEFX periodically provides the opportunity to demonstrate new capabilities that provide decisive air and space power by identifying existing DII components and other software that can be integrated to further advance effectiveness. Research and development funding will be used to develop the integrating code for various systems ranging from communications, C2, computers, weapons, Intelligence, Surveillance and Reconnaissance (ISR) and aerospace delivery vehicles. In addition, funds will be used to develop enhancements to existing capabilities necessary to demonstrate how emerging products can improve the warfighters' effectiveness. Spirals within the acquisition cycle allow deficiencies to be identified and considered for future spirals as well as the next experiment or applied to current capabilities. Selected technologies will be identified via a vigorous, defined process for integration with existing systems and transitioned to the field for warfighter use. Integration efforts will capitalize on the synergy between evolving technologies and on-going system program modifications to maximize the return on investment. Various time & materials CAAS contracts will be awarded during the first quarter to provide program support and various other contracts, CPFF, T&M, cost plus award fee, etc., will be awarded during the first and second quarters pending the initiatives selected during the initiative selection process.								
(U) E. Schedule Profile								
		<u>FY 2001</u>				<u>FY 2002</u>		<u>FY 2003</u>
	1	2	3	4	1	2	3	4
(U) Call for initiatives for JEFX 2002 (Performed under PE 0207027F)								
(U) Initiative selection, JEFX 2002 (Performed under PE 0207027F)								
(U) Architectural Development, JEFX 2002								
(U) Conduct Spiral I								
(U) Conduct Spiral II								
(U) Conduct Spiral III								
(U) Conduct JEFX 2002 Experiments								

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(U) <u>E. Schedule Profile Continued</u>												
		<u>FY 2001</u>				<u>FY 2002</u>				<u>FY 2003</u>		
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Perform Assessment, JEFX 2002 Experiments (1QFY03)								X				
(U) Commence integration of selected initiatives (1QFY03)								X				
(U) Call for Initiatives, APTX 03								X				
(U) Initiative Selection, APTX 03									X			
(U) Architectural Development										X		
(U) Conduct APTX 03											X	
(U) Call for Initiatives, JEFX 04											X	
(U) * Denotes completed event												
X Denotes planned event												

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2002			
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT		
07 - Operational System Development					0207028F Joint Expeditionary Force Experiment				4373		
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>											
					<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>		
(U) Initiatives from government and industry, selection and prioritization of new and previously considered initiatives, C2 Center Communications and computer development upgrade							8,800		954		
(U) Development of systems architecture and integration, including engineering, for the experiment							8,400		3,056		
(U) Planning, coordination, and assessing the experiment.							7,400		5,405		
(U) Implement architectural configuration, conduct modeling and simulation (M&S), install infrastructure, install and test communications configurations.							14,382		1,368		
(U) Integration of new initiatives and legacy systems into an integrated C2ISR baseline. Funding provided in odd years only.							0		10,000		
(U) Total							38,982		20,783		
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
(U) <u>Performing Organizations:</u>											
<u>Contractor or Government</u>		<u>Contract Method/Type</u>		<u>Award or Obligation</u>		<u>Performing Activity</u>		<u>Project Office</u>		<u>Total Prior</u>	
<u>Performing Activity</u>		<u>or Funding Vehicle</u>		<u>Date</u>		<u>EAC</u>		<u>EAC</u>		<u>to FY 2001</u>	
<u>Product Development Organizations</u>											
ESC		MITRE		1 October		N/A		N/A		6,000	
ESC		GSA		1 April		N/A		N/A		5,500	
ESC		IDIQ		1 October		N/A		N/A		1,500	
ESC		TBD		TBD		N/A		N/A		6,400	
AC2ISRC		Time & Materials		1 December		N/A		N/A		1,000	
AC2ISRC		Time & Materials		1 October		N/A		N/A		300	
AC2ISRC		Time & Materials		1 October		N/A		N/A		250	
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BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT		
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(U) <u>Performing Organizations Continued:</u>										
<u>Product Development Organizations</u>										
AC2ISRC	Time & Materials	1 February	N/A	N/A	200		Continuing	TBD		
AC2ISRC	Time & Materials	1 December	N/A	N/A	1,811		Continuing	TBD		
AC2ISRC	Time & Materials	1 December	N/A	N/A	499		Continuing	TBD		
AC2ISRC	Time & Materials	1 December	N/A	N/A	959		Continuing	TBD		
AC2ISRC	Time & Materials	1 December	N/A	N/A	961		Continuing	TBD		
AC2ISRC	Time & Materials	1 Dec	N/A	N/A	287		Continuing	TBD		
AC2ISRC	Time & Materials	1 Dec	N/A	N/A	220		Continuing	TBD		
AC2ISRC	TBD	TBD	N/A	N/A	13,095	5,874	Continuing	TBD		
<u>Support and Management Organizations</u>										
<u>Test and Evaluation Organizations</u>										
					<u>Total Prior to FY 2001</u>	<u>Budget FY 2001</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Subtotals</u>										
Subtotal Product Development							38,982	20,783	TBD	TBD
Subtotal Support and Management										
Subtotal Test and Evaluation										
Total Project							38,982	20,783	TBD	TBD

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COST (\$ in Thousands)		FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4991	JDEP	0	4,582	6,378	6,662	6,653	4,947	4,941	Continuing	TBD
<p>(U) <u>A. Mission Description</u></p> <p>The Joint Distributed Engineering Plant (JDEP) connects combat system engineering sites and replicates Joint Force Combat Systems to create a network testbed to assess joint Battle Management, Command, Control, Communication, Computers and Intelligence. It's objective is to improve interoperability of weapons systems and platforms through more rigorous interoperability evaluation in a replicated battlefield environment. JDEP will provide the capability both to improve service and joint system performance in a system-of-systems environment.</p> <p>JDEP will link existing Service and Joint combat system engineering and test sites, such as C4I hardware in the loop and computer-program-in-the-loop engineering sites (including Design Activities, software support activities, test & evaluation facilities and training commands) located around the country.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$0 No activity</p> <p>(U) \$0 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$1,495 Site activation and Ops support: JDEP leverages as much as possible the existing infrastructure at sites throughout DoD to connect combat system engineering sites to emulate tactical data links. It builds on a federation of sites that are activated expanding on the current sites and identifying which ones should be activated in the future. This process gives geographically separated C2 centers and program offices the ability to work interoperability issues early in the acquisition process. There are 3-programmed AF sites scheduled to be activated. This includes hardware, software and activation cost for each site.</p> <p>(U) \$875 Communication architectures, links and engineering and support for site activities. This includes hardware, software and network connections for each site activated. It incorporates configuration management, scheduling, development & implementation of communications architectures. This will support distributed hardware, software and warfighter-in-the-loop joint integration activities. It leverages connections at existing facilities, which allows a repeatable environment to be readily available to developers, engineers and warfighters.</p> <p>(U) \$590 Existing JDEP support activities. This includes ops and maintenance of the current sites, which are JDEP capable. This includes ops & maintenance support along with contracted personnel to assist in event activities.</p>										
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BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0207028F Joint Expeditionary Force Experiment		PROJECT 4991																																																			
<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2002 (\$ in Thousands) Continued</u></p> <p>(U) \$295 Development of systems architecture and integration, including engineering, for the JDEP repeatable environment. This effort will include development of Joint simulation and stimulation environments to support integration & interoperability assessment. Allows a customer to come to a single facility for resolution to system solutions.</p> <p>(U) \$800 Experiment implementation and analysis to participant in various events during pre, during and post exercise events. It includes support staff to assist users in the analysis of data, identifying problems and assistance in system solutions.</p> <p>(U) \$527 Development of a simulation/stimulation environment for JDEP events. This incorporates the simulation of an environment that allows customers an opportunity to resolve interoperability issues with realistic scenarios.</p> <p>(U) \$4,582 Total</p> <p>(U) <u>FY 2003 (\$ in Thousands)</u></p> <p>(U) \$1,645 Continue site activations and Operations support. This includes hardware, software and activation cost for each site.</p> <p>(U) \$1,220 Continue communication architectures, links and engineering and support for site activities.</p> <p>(U) \$1,224 Continue existing JDEP support activities to include ops & maintenance support along with contracted personnel to assist in event activities.</p> <p>(U) \$411 Continue development of systems architecture and integration, including engineering, for the JDEP repeatable environment.</p> <p>(U) \$1,144 Continue experiment implementation and analysis to participant in various events during pre, during and post exercise events.</p> <p>(U) \$734 Continue development of a simulation/stimulation environment for JDEP events.</p> <p>(U) \$6,378 Total</p> <p>(U) <u>B. Project Change Summary</u></p> <p>(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 10%; text-align: center;"><u>FY 2001</u></th> <th style="width: 10%; text-align: center;"><u>FY 2002</u></th> <th style="width: 10%; text-align: center;"><u>FY 2003</u></th> <th style="width: 10%; text-align: center;"><u>FY 2004</u></th> <th style="width: 10%; text-align: center;"><u>FY 2005</u></th> <th style="width: 10%; text-align: center;"><u>FY 2006</u></th> <th style="width: 10%; text-align: center;"><u>FY 2007</u></th> <th style="width: 10%; text-align: center;"><u>Cost to</u></th> <th style="width: 10%; text-align: center;"><u>Total Cost</u></th> </tr> <tr> <th></th> <th style="text-align: center;"><u>Actual</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Complete</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>(U) AF RDT&E</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Other APPN</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>N/A</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>									<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>		<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>		(U) AF RDT&E										(U) Other APPN										N/A									
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Project 4991				Page 12 of 15 Pages		Exhibit R-2A (PE 0207028F)																																																			

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

07 - Operational System Development

0207028F Joint Expeditionary Force Experiment

4991

(U) **D. Acquisition Strategy**

Acquisition Strategy: Electronic Systems Center (ESC), Hanscom AFB, MA will manage the acquisition and development process for the experimentation, integration and site activation activities for all Air Force JDEP activities. JDEP will provide and opportunity to perform integration activities with joint users from a single location for system integration, development and risk reduction activities.

(U) **E. Schedule Profile**

	<u>FY 2001</u>					<u>FY 2002</u>					<u>FY 2003</u>			
	1	2	3	4	1	2	3	4	1	2	3	4		
(U) Event Planning					X									
(U) Conduct SIAP Interoperability Event						X								
(U) Implement JDEP connectivity at Hanscom and other Air Force sites.							X							
(U) Conduct PAC3 IOT&E (Extended)							X							
(U) Conduct TACMEMO Interoperability Event								X						
(U) Track 3 Event											X			
X - planned														
* - completed														

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2002		
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT	
07 - Operational System Development					0207028F Joint Expeditionary Force Experiment				4991	
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
					<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>	
(U) Site Activation and Ops support							1,495		1,645	
(U) Communication architectures, links, and engineering support							875		1,220	
(U) Existing JDEP support activities							590		1,224	
(U) Development of systems architecture and integration for JDEP repeatable environment							295		411	
(U) Experiment implementation and analysis to participants							800		1,144	
(U) Development of a simulation/stimulation environment for JDEP events							527		734	
(U) Total							4,582		6,378	
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
<u>Contractor or</u>		<u>Contract</u>								
<u>Government</u>		<u>Method/Type</u>								
<u>Performing</u>		<u>Award or</u>								
<u>Activity</u>		<u>Obligation</u>								
<u>Vehicle</u>		<u>Date</u>								

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE
										February 2002
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT
07 - Operational System Development					0207028F Joint Expeditionary Force Experiment					4991
(U) <u>Performing Organizations Continued:</u>										
<u>Support and Management Organizations</u>										
ESC	TBD	TBD	N/A	N/A	0	0	372	519	Continuing	TBD
<u>Test and Evaluation Organizations</u>										
					<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>					<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development										
Subtotal Support and Management					0	0	4,582	6,378	TBD	TBD
Subtotal Test and Evaluation										
Total Project					0	0	4,582	6,378	TBD	TBD